SHARP

FRACTION/SCIENTIFIC CALCULATOR

MODEL EL-500W

OPERATION MANUAL

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INTRODUCTION

Thank you for purchasing the SHARP Fraction/Scientific Calculator Model EL-500W. This calculator will help you understand mathematical concepts behind fraction calculation, such as simplification and reduction.

After reading this manual, store it in a convenient location

Operational Notes

- Do not carry the calculator around in your back pocket, as it may break when you sit down. The display is made of glass and is particularly fragile.
- Keep the calculator away from extreme heat such as on a car dashboard or near a heater, and avoid exposing it to excessively humid or dusty environments.
- Since this product is not waterproof, do not use it or store it where fluids, for example water, can splash onto it. Raindrops, water spray, juice, coffee, steam, perspiration, etc. will also cause malfunction.
- Clean with a soft, dry cloth. Do not use solvents or wet
- · Do not drop it or apply excessive force.
- Never dispose of batteries in a fire.
- Keep batteries out of the reach of children This product, including accessories, may change due to
- upgrading without prior notice.

SHARP will not be liable nor responsible for any incidental or consequential economic or property damage caused by misuse and/or malfunctions of this product and its peripherals, unless such liability is acknowledged by law.

- Press the RESET switch (on the back) only in the following cases. Note that pressing the RESET switch erases all data stored in memory.
- Before using for the first time · After replacing the batteries
- To clear all memory contents
- · If an abnormal condition occurs and all keys are inop-

If service should be required for the calculator, use only a SHARP servicing dealer, SHARP approved service facility, or SHARP repair service where available

Hard Case



How to Simplify a Fraction

Reducing to its simplest form

automatically or manually.

[Automatic Simplification]

[Manual Simplification]

to the "FACTOR?" display



If the result of pressing (=) is displayed with the "SIMP"

symbol, the calculation can be reduced further. Use the

SIMP key to set the factor of the fraction to simplify, either

If you do not know a common factor, press =

greatest common factor "6" will be displayed

 $\frac{1}{3} + \frac{2}{12} = ON/C \ 1 \ (x/y) \ 3 \ + \ 2 \ (x/y) \ 12 \ =$

 $\frac{1}{3} + \frac{2}{12} = 0$ N/C 1 (x/y) 3 + 2 (x/y) 12 =

ON/C 1 (x/y) 2 + 1 (x/y) 3 =

2 (x/y) 5 (X 1 (x/y) 3 =

5/6

2/15

SIMP 6/12

SIMP 6/12

SIMP 3/6

1/2

19/21

1/2

 $1.25 + \frac{2}{5} =$

 $\to [\text{AB/}_{\text{C}}]$

6_SIMP

SIMP FACTOR? SIMP

SIMP FACTOR? SIMP

=)*

2 (=)

=)

SIMP DENOM.? SIMP

SIMP DENOM.?SIMP

(=)*

=

12_SIMP

16/48+12/48

SIMP 28/48

1/3+1/4

4/12+3/12 7/12

48 = *

(SIMP) 3 (=

"2" is entered as a factor, and the "SIMP" will be displayed

If the entered value is not a common factor, the cursor will

be set under the value. Press (DEL) to clear the value,

then enter a correct common factor. Press ON/C to return

Now that you have learned how to reduce a fraction to

If = is pressed instead of SIMP, the number will

Prior to pressing the (=) key, a common denominator can

ON/C 1 $\overline{x/y}$ 3 + 1 $\overline{x/y}$ 4

* Enter a common denominator of the two fractions.

Press ON/C to return to the "DENOM.?" display.

If the entered value is not a common denominator, the

cursor will be set under the value Press DEL to clear

the value, then enter a correct common denominator,

Now that you have learned how to reduce a fraction to

its lowest denominator, you can start using your calcu-

lator to perform fraction calculations quickly and effi-

ON/C 1 (x/y) 3 + 1 (x/y) 4

automatically be reduced down to its simplest form with

perform fraction calculations quickly and efficiently.

 $\frac{5}{6} + \frac{1}{14} =$ ON/C 5 (x/y) 6 (x/y) 14 (x/y) 14 (x/y)

Reducing to the lowest denominator

be set to organize calculations

ciently.

to indicate further simplification of the fraction.

DISPLAY

Mantissa Exponent (All symbols will not be displayed simultaneously, as shown

sin30+cos60×0

: Appears when the entire equation cannot be displayed. Press / b to see the remaining (hidden) section

: Appears when [2ndF] is pressed, indicating that the

functions shown in orange are enabled. : Indicates that a fraction can be simplified further, or

expressed with a lower denominator. DEG/RAD/GRAD: Indicates angular units (Degrees, Radians

and Grads) and changes each time DRG is pressed. : Appears when statistical mode is selected.

: Indicates that a numerical value is stored in the

independent memory. BEFORE USING THE CALCULATOR

Key Notation Used in this Manual

In this manual, key operations are described as follows:

To specify π : 2ndF π To specify Exp: Exp

To access functions printed in orange above keys, press 2ndF

In this manual, number entry examples are shown with ordinary numbers (i.e., "100" will be indicated instead of "1 0

Power On and Off

Press ONC to turn the calculator on, and OPT OFF to turn it off.

Clearing Methods

There are three clearing methods as follows:

Clearing operation	Entry (Display)	M*1	STAT, ANS*2
ON/C	0	×	×
2ndF) CA	0	×	0
RESET	0	0	0
○ : Clear	\times : Retain		

- Independent memory M.
- To clear the independent memory (M), press ON/C STO.

Editing the Equation

Press or to move the cursor.

Conversion from/to a Fraction

*2 Statistical data and last answer memory

- To return to the equation after getting an answer, press To delete a number, place the cursor on the number to be
- deleted, then press DEL · To insert a number, move the cursor to the place immedi-
- ately after where the number is to be inserted, then enter

15 + 8	ON/C 15 + 8	15+8_
↓ 15 – 3	DEL DEL	15_ 15–3_
13 × 24 =	ON/C 13 × 24 =	312.
↓ 15 × 24 =	() () (b) (b) (b) (b)	13×24 360.

Correcting Entered Data Correction prior to pressing DATA Delete incorrect data with ON/C

Score Number of Persons

10

13

30

40

50

60

70

80

90

100

played.

Errors

1.65

SIMP 1_65/100

13/20 ــ 1

Calculating Statistical Quantities

2ndF CA

30 (FRQ(,)) 5 (DATA

40 [FRQ(,)] 3 [DATA]

50 (FRQ(,)) 10 (DATA)

60 (FRQ(,)) 12 (DATA)

70 [FRQ(,)] 13 [DATA]

80 (FRQ(,)) 9 (DATA)

90 (FRQ(,)) 7 (DATA)

2ndF) \overline{x}

2ndF Sx

2ndF σx

2ndF) n

2ndF Σx

2ndF Σx^2

 $\int \Sigma x^2 - n\bar{x}^2 \qquad \Sigma x = x_1 + x_2 + \dots + x_n$

In the statistical calculation formulas, an error will occur:

result is equal to or greater than $1\times10^{100}.$

ERROR AND CALCULATION RANGES

the denominator is zero.

Error Codes and Error Types

Ex. 2 (+) (-) 5 (=)

result equals or exceeds 10100.

An attempt was made to divide by 0.

Syntax error (Error 1):

calculations.

Calculation error (Error 2):

· the absolute value of the intermediate result or calculation

an attempt is made to take the square root of a negative

An error will occur if an operation exceeds the calculation

ranges, or if a mathematically illegal operation is attempted. If

an error occurs, pressing (or) automatically moves the cursor back to the place in the equation where the error

occurred. Edit the equation or press ON/C to clear the equa-

An attempt was made to perform an invalid operation.

· The absolute value of an intermediate or final calculation

• The calculation ranges were exceeded while performing

Statistical Calculation Formulas

· If both the resulting digits and the function name (such as

 $\Sigma x=$) cannot be contained in the display, only the resulting

value will be displayed; the function name will not be dis-

 $\sigma x = \sqrt{\frac{\sum x^2 - n\bar{x}^2}{\sum x^2 - n\bar{x}^2}}$

 $\Sigma x^2 = x_1^2 + x_2^2 + \dots + x_n^2$

(n: number of samples)

100 (FRQ(,)) 3 (DATA)

Correction after pressing (DATA): A^B/c: Converts a decimal or improper fraction to a Press to confirm the latest entry and press 2ndF CD mixed fraction. A/B : Converts a mixed fraction or decimal to an im-

proper fraction. In some cases, a decimal may not be converted to a fraction.

If = is pressed instead of a number entry, the least

non denominator will automatically be displayed.

Converts an improper fraction or a mixed fraction to a decimal

$4\frac{5}{6} =$	ON/C) 4 UNIT) 5 x/y 6 =		5/6 🎍
	(A.xxx) (A/B)	4.83	3333333 29/6
1 ÷ 3 = → [A/B]	1 ÷ 3 =	0.33	3333333 1/3
6 ÷ 5 = → [A/B]	6 ÷ 5 =	SIMP	1.2
$\rightarrow [AB/C]$ $\rightarrow [A.xxx]$	(A ⁸ /c) (A.xxx)	Silvii	2/10 ــ 1 1.2

1.25 + 2 (x/y) 5 =

STATISTICAL CALCULATIONS

To enter the statistical mode, press (2ndF)(STAT). The indicator symbol STAT will light up. The following statistics can be

- Mean of samples
- Standard deviation of samples
- σx : Population standard deviation of samples Number of samples
- Σx : Sum of samples
- Σx^2 : Sum of the squares of samples

Entering Data

To enter sample data, use the numeric keys and press (STO) key) after each value.

To enter data with its frequency, use the numeric keys to enter the value, then press FRQ(,) (RCL key), enter the frequency, then press (DATA).

Enter the data "7"	ON/C 2ndF STAT 2ndF CA 7		STAT 7
	DATA	n =	1.*
There are 13 students	2ndF CA 70 FRQ(,) 13		70, 13_
who scored 70 in the	DATA	n =	13.
test, and 5 students	50 (FRQ(,)) 5		<i>50, 5_</i>
who scored 50.	DATA	n =	18.

- The number of samples for the entered data will be dis-
- Entered data are kept in memory until 2ndF CA or 2ndF STAT are pressed. Before entering new data, clear the memory contents.
- If the number of the sample values exceeds 999,999,999 "n=" will not annear
- When inputting a formula as a sample value with frequency, parenthesize the data.
- Example: $(A \times B)$ FRQ(,) frequency DATA

Priority Levels in Calculation

This calculator performs operations according to the following

1 Functions expressed with numerical data placed before

4 Functions expressed with numerical data placed after (such

as (-), sin, cos) ⑤ Multiplications with the sign "x" omitted from the front of a function (such as 3cos20)

nCr, nPr

- Operations end commands (such as =, M+, %, DRG DATA, CD)
- A parenthesized calculation section has precedence over other sections of the calculation

INITIAL SETUP

Mode Selection

Normal Mode Used to perform arithmetic operations and function calcula-

Statistical Mode:

Used to perform statistical operations. To enter statistical mode, press 2ndF STAT appears on the display to indicate that the statistical mode is selected. To return to normal mode, press 2ndF STAT with STAT on the display. **STAT** disappears as the calculator returns to normal mode.

- The mode will remain selected when the calculator is turned
- When executing mode selection, last answer memory will be cleared.

Scientific Notation

People who need to deal with very large and very small numbers often use a special format called exponential or scientific

A number expressed in scientific notation has two parts. The first part consists of a regular decimal number between 1 and 10. The second part represents how large or small the number is in powers of 10.

While a calculation result is displayed in the floating point system, press (2ndF)(F++E) to display the result in the scientific notation system. Pressing 2ndF F++E once again will bring back the floating point system To enter a number in scientific notation, press Exp

 $(1.2 \times 10^{20}) \times (1.5 \times 10^{5})$ 1.2 Exp 20 \times 1.5 Exp 5 = **1.8**×**10**²⁶ $3 \div 7 =$ [Floating point] 0.428571428

- 4.285714286×10⁻⁰ → [Scientific notation] (2ndF) (F++E) 4.29×10⁻⁰ [TAB set to 2] → [Floating point] 0.428571428 Use [2ndF] [F++E] to switch to the scientific notation, press
- 2ndF) TAB, then give a value between 0 and 9 to set the decimal placement. To reset, press 2ndF TAB 9. The number will be displayed in scientific notation if the
- floating point value does not fit in the following range: The last decimal digit in scientific notation will be rounded

STAT

n =

n =

n =

n =

n =

n =

 $\Sigma x =$

5

18.

30.

43.

52.

59.

62.

62

4050.

65.32258065

18.52935128

18.37931358

 $\Sigma r^2 = 285500$

Depth error (Error 3): · The available number of buffers was exceeded. (There are 8 buffers* for numeric values and 16 buffers for calculation

Equation too long (Error 4): The equation exceeded its maximum input buffer (159 characters). An equation must be shorter than 159 characters.

Calculation Ranges

Within the ranges specified below, this calculator is accurate to ±1 of the least significant digit of the mantissa. However, a calculation error increases in continuous calculations due to accumulation of each calculation error. (This is the same for y^x , $x\sqrt{\ }$, etc. where continuous calculations are performed internally.) Additionally, a calculation error will accumulate and

If the absolute value of an entry or a final or intermediate result of a calculation is less than 10-99, the value is considered to be 0 in calculations and in the display

sin x	DEG: $ x < 10^{10}$
cos x	$(\tan x : x \neq 90(2n-1))^*$
tan x	RAD: $ x < \frac{\pi}{180} \times 10^{10}$
	$(\tan x : x \neq \frac{\pi}{2} \times (2n-1))^*$
	GRAD: $ x < \frac{10}{9} \times 10^{10}$
	$(\tan x : x \neq 100(2n-1))^*$
sin ⁻¹ x	x ≤ 1
COS ⁻¹ x	MI S I
tan⁻¹x	$ x < 10^{100}$
ln x	$10^{-99} \le x < 10^{100}$
log x	
y^{X}	$y > 0: -10^{100} < x \log y < 100$ $y = 0: 0 < x < 10^{100}$
У	$y = 0.0 < x < 10^{-10}$ $y < 0$: $x = n (0 < x < 1: \frac{1}{x} = 2n-1, x \ne 0)^*$
	$-10^{100} < x \log y < 100$
	$y > 0$: $-10^{100} < \frac{1}{x} \log y < 100 \ (x \neq 0)$
$x_{\sqrt{y}}$	$y = 0: 0 < x < 10^{100}$
,	$y < 0: x = 2n-1 (0 < x < 1: \frac{1}{x} = n, x \neq 0)^*,$ $-10^{100} < \frac{1}{x} \log y < 100$
·	$-10^{100} < \frac{1}{x} \log y < 100$ $-10^{100} < x \le 230.2585092$
eX	
10x	$-10^{100} < x < 100$
	x < 10 ⁵⁰
\sqrt{x}	0 ≤ x < 10 ¹⁰⁰
x ⁻¹	$ x < 10^{100} \ (x \neq 0)$
n!	0 ≤ n ≤ 69*
nPr nCr	0 ≤ r ≤ n ≤ 69*
	DEG→RAD, GRAD→DEG : x < 10 ¹⁰⁰
DRG▶	RAD \rightarrow GRAD : $ x < \frac{\pi}{2} \times 10^{98}$

Determination of the Angular Unit In this calculator, the following three angular units (degrees radians, and grads) can be specified.

→ DEG (°). Press DRG GRAD (g) RAD (rad)

SCIENTIFIC CALCULATIONS

- In each example, press ON/C to clear the display before performing the calculation

Arithmetic Operations

12+16×3=	ON/C 12 + 16 × 3 =	60.
350-120÷4=	350 — 120 ÷ 4 =	320.
72×(-12)–150=	72 × (-) 12 - 150 =	-1014.
(5+21)×(30–16)=	(5 + 21) X (30 - 16) =	364.
$(6\times10^3)\div(2\times10^{-4})=$	(6 Exp 3) ÷ (2 Exp (-) 4) =	30000000.

Constant Calculations

In constant calculations, the addend becomes a constant Subtraction and division are performed in the same manner. For multiplication, the multiplicand becomes a constant.

245 <u>+60</u> =	ON/C) 245 + 60 =	305.
12 <u>+60</u> =	12 =	72.
150 <u>–20</u> =	150 — 20 =	130.
250 <u>–20</u> =	250 =	230.
200 <u>÷4</u> =	200 ÷ 4 =	50.
180 <u>÷4</u> =	180 =	45.
<u>15×</u> 3=	15 × 3 =	45.
<u>15×</u> 10=	10 =	150.

Functions

• For each example, press ONC to clear the display

 $-90 \le \theta \le 90$

 Before starting calculations, specify the angular unit The results of inverse trigonometric functions are displayed

within the following range:		
$\theta = \sin^{-1} x \ \theta = \tan^{-1} x$	$\theta = \cos^{-1} r$	

RAD	$-\frac{\pi}{2} \le \theta \le \frac{\pi}{2}$	$0 \leq \theta \leq \pi$
GRAD	-100 ≤ θ ≤ 100	$0 \leq \theta \leq 200$
sin60[°]=	ON/C) sin 60 =	0.866025403
$\cos\frac{\pi}{4}[rad]=$	DRG	π ÷ 4 0.707106781
tan ⁻¹ 1=[g]	DRG (2ndF) (tan-1) 1 =	50

 $0 \le \theta \le 180$

50.

ln 20 =(2ndF) In 20 = 2.995732274 2ndF) log 50 = 1.698970004 log 50 = $e^3 =$ $2 \text{ndF} e^x 3 =$ 20.08553692

DRG

* 4 buffers in STAT mode. instructions).

become larger in the vicinity of inflection points and

singular points of functions. Calculation range: $\pm 10^{-99} \sim \pm 9.999999999 \times 10^{99}$ and 0.

sin x	DEG: $ x < 10^{10}$
cos x	$(\tan x : x \neq 90(2n-1))^*$
tan x	RAD: $ x < \frac{\pi}{180} \times 10^{10}$
	$(\tan x : x \neq \frac{\pi}{2} \times (2n-1))^*$
	GRAD: $ x < \frac{10}{9} \times 10^{10}$
	$(\tan x : x \neq 100(2n-1))^*$
$\sin^{-1}x$ $\cos^{-1}x$	x ≤ 1
tan⁻¹x	x < 10 ¹⁰⁰
In x log x	$10^{-99} \le x < 10^{100}$
y ^x	$ y > 0: -10^{100} < x \log y < 100 $ $ y = 0: 0 < x < 10^{100} $ $ y < 0: x = n (0 < x < 1: \frac{1}{x} = 2n-1, x \neq 0)^*, $ $ -10^{100} < x \log y < 100 $
$x_{\sqrt{y}}$	$y > 0: -10^{100} < \frac{1}{x} \log y < 100 \ (x \neq 0)$ $y = 0: 0 < x < 10^{100}$ $y < 0: x = 2n - 1 \ (0 < x < 1: \frac{1}{x} = n, x \neq 0)^*,$ $-10^{100} < \frac{1}{x} \log y < 100$
eX	$-10^{100} < x \le 230.2585092$
10 <i>x</i>	$-10^{100} < x < 100$
x ²	x < 10 ⁵⁰
\sqrt{x}	0 ≤ <i>x</i> < 10 ¹⁰⁰
x ⁻¹	$ x < 10^{100} (x \neq 0)$
n!	0 ≤ n ≤ 69*
nPr nCr	0 ≤ r ≤ n ≤ 69*
DRG▶	DEG \rightarrow RAD, GRAD \rightarrow DEG : $ x < 10^{100}$ RAD \rightarrow GRAD : $ x < \frac{\pi}{2} \times 10^{98}$

10 ^{1.7} =	$(2ndF)(10^x) 1.7 =$	50.11872336
$3^2 + 5^2 =$	3 $2ndF$ X^2 + 5 $2ndF$ X^2	34.
$\sqrt{32} + \sqrt[3]{21} =$	2ndF	8.415778426
7 ⁴ =	7 $(2ndF)(y^x)$ 4 $(=)$	2401.
4! =	4 (2ndF) n! =	24.
₁₀ P ₃ =	10 (2ndF) (nPr) 3 =	720.
₅ C ₂ =	5 2ndF nCr 2 =	10.
$\frac{\pi}{3}$ =	$(2ndF)$ π \div 3 =	1.047197551
$\frac{1}{4} + \frac{1}{5} =$	4 (2ndF) (X-1) + 5 (2ndF) (X-1)	0.45
200 × 32% =	200 × 32 (2ndF) %	64.
150 ÷ 300 = ?%	150 ÷ 300 (2ndF) %	50.
200 + (200 × 32%) =	200 + 32 (2ndF) %	264.
300 - (300 × 25%) =	300 (-) 25 (2ndF) (%)	225.

Random Numbers

A pseudo-random number with three significant digits can be generated by pressing 2ndF RANDOM = . To generate the next random number, press =

Angular Unit Conversions

Each time 2ndF DRG are pressed, the angular unit changes in sequence.

90°→ [rad]	ON/C 90 (2ndF) DRG▶	1.570796327
\rightarrow [g]	2ndF DRG▶	100.
→ [°]	2ndF DRG▶	90.
sin ⁻¹ 0.8 = [°]	2ndF (sin-1) 0.8 =	53.13010235
\rightarrow [rad]	(2ndF)(DRG▶)	0.927295218
\rightarrow [g]	(2ndF)(DRG▶)	59.03344706
→ [°]	2ndF DRG▶	53.13010235

Memory Calculations

This calculator has two memory allocations: independent memory (M), and last answer memory (ANS). You will find them especially useful when combinations of calculations become complicated, or when using the answer of previous calculation to another operations

Press ONC STO to clear the independent memory ("M" symbol will disappear).

Independent memory (M)

BATTERY REPLACEMENT

Notes on Battery Replacement

Do not mix new and old batteries.

When to Replace the Batteries

store in a safe place.

batteries of different types.

damage the calculator.

Replacement Procedure

tery cover.

the calculator.

Caution

· Replace both batteries at the same time

Make sure the new batteries are the correct type

STO: Stores the result in the memory.

(RCL): Recalls the value stored in the memory. 2ndF) M+ : Adds the result to the value in the memory.

$30 + (3 \times 5) =$ $(3 \times 5) \times 4 =$	ON/C 3 × 5 STO 30 + RCL = RCL × 4 =	15. ^M 45. ^M 60. ^M
20+10-5= 121+13×2= +) 21×3-16= (Total)	ONC 20 + 10 - 5 STO 121 + 13 × 2 2ndF M+ 21 × 3 - 16 2ndF M+ RCL ONC STO	25. ^M 147. ^M 47. ^M 219. ^M

or explosion. Be sure to observe the following handling rules:

When installing, orient each battery correctly as indicated in

The factory-installed batteries may be exhausted before

they reach the service life stated in the specifications

If the display has poor contrast or nothing appears on the

display even when ON/C is pressed, it is time to replace the

Fluid from a leaking battery accidentally entering an eye

could result in serious injury. Should this occur, wash with

Should fluid from a leaking battery come into contact with

If the product is not to be used for some time, to avoid

damage to the unit from leaking batteries, remove them and

your skin or clothes, immediately wash with clean water.

. Do not fit partially used batteries, and be sure not to mix

· Exhausted batteries left in the calculator may leak and

clean water and immediately consult a doctor.

· Do not leave exhausted batteries inside the product.

· Explosion risk may be caused by incorrect handling.

Do not throw batteries into a fire as they may explode

· Keep batteries out of the reach of children

1. Turn the power off by pressing (2ndF)(OFF).

2. Loosen both screws and remove the bat

the positive (+) sides facing up.

4. Replace the battery cover and screws. 5. Press the RESET switch on the back.

· Make sure that the display appears

as shown. Otherwise, remove the

batteries, reinstall, and check the dis-

Last answer memory (ANS) ANS² $4 \times (A) + 60 \div (A) = 4 \times 2ndF = 60 \div$

To calculate the G.C.F. or the L.C.M., the procedures are as

of 24 and 36?	24GCF36_ 12.
What is the L.C.M. ONC 15 of 15 and 9?	15_ 15LCM9_ 45.

Calculating Quotient and Remainder

. Odlodiates the quotient and remainder.						
23 ÷ 5	ON/C) 23 (2ndF) (INT÷) 5	23 🗜 5				
(R: Remainder)	=	4.	пŝ			
9.5 ÷ 4	9.5 (2ndF) (INT÷) 4	9.5 🔒 4				
	=	2.	я 1.			
-32 ÷ (-5)	(-) 32 (2ndF)(INT÷)(-) 5	-32 🖶 −5				
	=	6.	R-2			

another operation such as $(+, -, \times, \div)$, otherwise an error The calculator can display a quotient or remainder up to 5

• Pressing $\overline{\text{INT}}$ cannot be followed by pressing a key for

digits in length, including the "-" sign. If numbers longer than 5 digits are entered, normal division is performed.

FRACTION CALCULATIONS

Entering Fractions

· To enter fractions, use the following keys:

 $\overline{x/y}$: Places the symbol "/" between the numerator and the denominator

UNIT: Separates the integer (whole number) part from the fractional part of a mixed number ON/C 2 (x/y) 3 = 2/3

 $4 \left(\overline{\text{UNIT}} \right) 1 \left(\overline{x/y} \right) 2 \left(= \right)$ 4_1/2 • Up to 10 key strokes, including "" and "/", can be used

Calculating with Fractions

tion of this manual for details

Fractions can be incorporated into an arithmetic calculation. "SIMP" symbol will appear with a calculation result if the answer can be further simplified. Refer to the following sec-

SPECIFICATIONS

General arithmetic operations (add subtract, multiply, divide, operations

operations, statistical operations,

fraction operations, function

Pending operations: (4 numeric values in STAT mode) 3V -- (DC): Power source

(LR44 or equivalent) × 2 0.0006 W Power consumption

> May vary according to usage and other factors.

Operating temperature: $0^{\circ}C - 40^{\circ}C$ ($32^{\circ}F - 104^{\circ}F$) External dimensions: $78.6 \, \text{mm} (\text{W}) \times 144 \, \text{mm} (\text{D})$

× 15/32" (H) Weight:

Batteries \times 2 (installed), operation Accessories manual, quick reference card and hard case.

FOR MORE INFORMATION Visit us on the Internet at:

3. Replace the old batteries with new, with

Automatic Power Off Function This calculator will turn its power off automatically if no key is

pressed for about 10 minutes.

Improper handling of batteries can cause electrolyte leakage

Operating time:

with constants, memory operations,

Mantissas of up to 12 digits Internal calculations: 16 calculations 8 numeric values

Alkaline batteries

Approx. 2000 hours, when continuously displaying 55555. at 25°C. (77°F)

 \times 11.6 mm (H)

3-3/32" (W) × 5-21/32" (D) Approx. 75 g (0.17 lb) (Including batteries)

http://www.sharpusa.com http://www.sharpplace.com



Sharp Plaza, Mahwah, New Jersey 07430-1163

When = is pressed, the calculation result will automatically be stored in the last answer memory 2ndF ANS : Recalls the value stored in last answer

6+4 = ANS ON/C 6 + 4 = 10. ANS + 5 15. + 5 = 16. $8 \times 2 = ANS$ 8 × 2 = 256. $4 \div 5 = 0.8...(A)$ ON/C $4 \div 5 =$ 0.8

2ndF ANS =

Calculating the Greatest Common Factor (G.C.F.) or Least Common Multiple (L.C.M.)